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09/852,498	05/10/2001	Gary D. Jerdee	71163	7129

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EXAMINER

AFTERGUT, JEFF H

ART UNIT PAPER NUMBER

1733

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/852,498

Applicant(s)

JERDEE ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-20, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

*Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 9-20, 22 and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 9 and 15, the only independent claims in this application, have both been amended to recite that the “adhesive material is substantially free of polypropylene”, however there is no support to recite that the adhesive material was free of polypropylene in the original disclosure. More specifically, while the original disclosure did state that there were “advantages over polypropylene and various polypropylene blends previously disclosed” (page 2, lines 7-9) when using “ethylene methyl acrylate copolymers as such a fusion material replacement for latex” for bonding the secondary backing to a carpet backing (and additionally the examples merely recited the use of ethylene methyl acrylate as the copolymer in the extruded adhesive material), the disclosure clearly stated that polypropylene was a useful polymer in the blend with the ethylene methyl acrylate at page 3, line 25 for example. Clearly, polypropylene was expressed as a useful polymer which was blended with the ethylene methyl acrylate in the adhesive composition. The disclosure did **NOT** expressly state that the composition was “substantially free” of polypropylene and actually even suggested that polypropylene would have

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been useful in combination with the ethylene methyl acrylate. It is not seen how applicant was in possession of a composition of ethylene methyl acrylate which was free of polypropylene.

Additionally, the applicant did not define what was meant by "substantially" free and the amount of polypropylene which was present in the composition was not defined in an adequate manner to provide support for applicant to now recite that the composition was "substantially free of polypropylene".

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9-20 and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 9 and 15, the only independent claims in the application, the applicant has amended the claims to recite that the adhesive composition is "substantially free of polypropylene". As expressed above, it would appear that polypropylene was described as possibly being present in the composition. It is therefore unclear what is meant by "substantially free" as it is not known whether some minor amount of polypropylene present would still be deemed to be "substantially free" from the same or not. The exact scope of the terminology "substantially free" cannot be ascertained as a result.

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***Claim Rejections - 35 USC § 102***

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Taft et al (3,887,738, newly cited).

Taft et al '738 suggested that it was known at the time the invention was made to employ a hot melt adhesive to join a primary carpet backing to a secondary backing wherein the adhesive material employed included 10-50% by weight of a copolymer of ethylene and alkyl acrylate (wherein the alkyl group of the alkyl acrylate has 1-18 carbon atoms and included methyl acrylate) where the ethylene was present in the copolymer as 65-82% and the alkyl acrylate was present in an amount of 18-35% by weight with ester of rosin and polyhydric alcohol (which can make up 25-65% by weight of the composition) and 25-35% by weight of ester of polyhydric alcohol and dimer and/or trimer of aliphatic ethylenically unsaturated monocarboxylic fatty acid having 16-22 carbon atoms. Applicant is more specifically referred to column 2, lines 48-68 for the ethylene methyl acrylate description, column 3, line 52-column 4, line 22 for the description of the ester of rosin and polyhydric alcohol and column 4, lines 23-33 for the description of the ester of polyhydric alcohol and dimer and/or trimer of aliphatic ethylenically unsaturated monocarboxylic fatty acid having 16-22 carbon atoms. The applicant is also referred to column 5, lines 40-45 where the reference expressly stated that the components of the hot melt adhesive which were blended together would have been experimentally determined. The applicant is additionally referred to column 6, lines 39-49 where the reference expressed that the compositions had excellent adhesion to materials typically utilized in the manufacture of a carpet and to column 6, line 67-column 7, line 9 where the reference expressed that conventional means used to apply the hot melt adhesive would have been used in the processing including extrusion.

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The reference additionally suggested that those skilled in the art would have utilized a nip roller arrangement to laminate the secondary backing to the carpet and the primary backing as described at column 8, lines 58-66. It should be noted that the reference did not expressly state that the adhesive composition was free from polypropylene, however there is no polypropylene added to the adhesive in the hot melt employed in the reference and therefore the reference is deemed to anticipate the claim as presented where no polypropylene is recited in the adhesive composition.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 9, 10, 12, 13, 15, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taft et al (3,887,738, newly cited) in view of Ballard.

Taft '738 is discussed in detail above in paragraph 6 and applicant is referred to the same for a complete discussion of the reference. The reference clearly suggested that one skilled in the art would have utilized a nip between two rollers to attach the primary backing to the secondary backing. The reference failed to teach that this laminating arrangement included the use of a soft roll and a hard chilled roll when laminating a heated adhesive between a primary backing and a secondary backing in carpet manufacture.

The reference to Ballard suggested that it was known to join a primary backing which included tufted fibers thereon to a secondary backing with a thermoplastic adhesive in a nip which included a chilled roller and a rubber covered roller. More specifically, the applicant is referred to column 4, lines 32-column 5, line 30 for a general description of the nip 13 formed by

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the water chilled roller 15 (held at 50-55 degrees F) and the rubber covered roller 14 which was 6 inches in diameter. The references clearly suggested that one skilled in the art at the time the invention was made would have incorporated a roller nip arrangement for pressing a secondary backing to a primary backing with a thermoplastic adhesive there between wherein the adhesive would have suitably been provided by extrusion coating the adhesive material. It would have been obvious to utilize a nip for forming a joint between a primary backing and a secondary backing in a tufted carpet of Taft et al '738 where such included a chilled hard roller and a soft rubber backing roller as suggested would have been useful by Ballard.

9. Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 8 further taken with Kerr for the same reasons as presented in paragraph 3 of the Office action mailed 6-9-03.

10. Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 9 further taken with either one of PCT WO 98/38375 or PCT WO 98/38376.

While the reference to Kerr suggested that the amount of pressure applied would have been controlled with the use of the specified rubber coated roller and hard roller used in the roller nip arrangement, the reference did not expressly state that one skilled in the art would have utilize pressure within the specified ranges claimed or that the specific pressure applied would have expressly been determined through routine experimentation. In the art of making carpets, it was notoriously well known at the time the invention was made to feed the tufted primary backing, the extruded adhesive and the secondary backing into a nip formed by rollers as evidenced by either one of PCT '376 or PCT '375. The references to PCT '375 (page 48, lines 3-

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30, Figure 7) and PCT '376 (page 48, lines 3-30, Figure 7) both suggested that the nip would have included a chill roll and a second roll. The references both suggested that the size of the roller as well as the pressure applied by the roller would have been determined through routine experimentation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the amount of pressure applied by the nip roller arrangement in the process of joining a secondary backing to a primary backing in the manufacture of a carpet as suggested by either one of PCT WO 98/38375 or PCT WO 98/38376 in the process of joining a secondary backing to a primary backing in carpet manufacture as set forth above in paragraph 9.

11. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Truax et al (newly cited) in view of Taft et al (3,887,738, newly cited).



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Truax et al suggested that it was known to apply a hot melt adhesive onto a primary backing of a carpet and to join a secondary backing to the same with a nip roller arrangement. More specifically, as depicted in Figure 1, a carpet having a pile side and a primary backing side was supplied 22 and coated with a hot melt adhesive composition from an extruder supply 26 followed by lamination of the secondary backing 18 onto the carpet with nip rollers 48 and 50. the reference suggested a suitable adhesive composition for the process included (as set forth in example III) the use of a copolymer of 80% ethylene and 20% ethyl acrylate mixed with high density polyethylene and alternatively the use of an ethylene/vinyl acetate 72/28 comonomer with polyethylene (in examples VIII and IX). It should be noted that claims 22 and 23 require that the polyethylene was recited as being blended with ethylene methyl acrylate and not ethylene ethyl acrylate or ethylene vinyl acetate.

However, in the process of joining a secondary backing to a primary backing with a hot melt adhesive, it was known to utilize as an alternative to ethylene vinyl acetate or ethylene ethyl acrylate a copolymer of ethylene and methyl acrylate as suggested by Taft et al '738. applicant is more specifically referred to column 2, line 48-68. Applicant is additionally advised that the reference to Taft '738 suggested that those skilled in the art would have known to apply the hot melt coating via an extruder and that the assembly would have been joined as the primary backing and secondary backing were fed through a pair of rollers at the nip of the same. the applicant is more specifically referred to paragraph 6 above for a complete discussion of Taft '738. the applicant is advised that where, as here, two equivalents are interchangeable for their desired function, an express suggestion of the desirability of the substitution of one for the other is not needed to render such substitution obvious, In re Fout, 213 USPQ 532 and In re Siebentritt,

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152 USPQ 618. additionally, it should be noted that the compositions of either one of Truax et al or Taft et al '738 failed to teach the use of polypropylene therein, and thus clearly envisioned hot melt adhesive compositions which were free of polypropylene. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ an ethylene methyl acrylate copolymer in place of ethylene ethyl acrylate copolymer or ethylene vinyl acetate copolymer as the ethylene methyl acrylate copolymer was a well known alternative in a hot melt adhesive composition for attaching a secondary backing to a primary backing in carpet manufacture as expressed by Taft et al '738 in the operation of securing a secondary backing to a primary backing in carpet manufacture or Truax et al.

***Response to Arguments***

12. Applicant's arguments with respect to claims 9-20 and 22-23 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues that the reference to Taft et al '353 (US Patent 3,849,353) previously applied against all of the claims desired the incorporation of atactic polypropylene in the hot melt composition for a specific reason (and therefore exclusion of the same would have destroyed the basic teachings of the reference) and that the references to Bratz et al do not expressly state that one would have substituted an atactic polypropylene with polyethylene for the same reasons that Taft '353 provided the same. the reference to Taft et al '353 has been removed from the rejection as a function of the amendments made by applicant to the claims where the hot melt composition is now required to be free of polypropylene. Additionally, the claims have been amended to remove the various additional polymers which were stated to have been blended with the copolymer of ethylene methyl acrylate or ethylene normal butyl acrylate.

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The applicant is advised that as a function of this amendment the reference to Taft et al '738 (US Patent 3,887,738) has been found to be applicable to the claimed subject matter.

Additionally, applicant is advised that the subject matter not claimed ("substantially free of polypropylene") is not supported in the original disclosure as the original disclosure failed to expressly recite that the composition was free of polypropylene and in fact expressed that the copolymer of ethylene and methyl acrylate or ethylene and normal butyl acrylate could be blended with polypropylene (see the Markush group of materials which applicant recited as useful for the blends as discussed above). As such, it is not clear that: (1) applicant was in possession of "substantially free of polypropylene", and; (2) what amount if any of polypropylene can be present in "substantially free" as applicant's themselves did not define what was meant by "substantially free" and the composition could include some polypropylene in the blend.

No claims are allowed.

### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

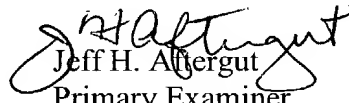
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1212.

  
Jeff H. Aftergut  
Primary Examiner  
Art Unit 1733

JHA

January 29, 2004